

## **Remarks**

Claim 12 is pending and stands rejected in Examiner's Office Action dated May 15, 2007 under 35 U.S.C. § 103 for obviousness on the basis of Norman 6,674,259, in view of BOTBALL, and US published patent application 2002/0155884 A1 to Updike.

For the reasons discussed below, the present rejection fails to make a prima facie case, and the rejection should be withdrawn. For convenience of reference, the pending claim is reproduced in the attached appendix, wherein each limitation is numbered.

## **Discussion**

### **1. The office action fails to make a prima facie case for rejection because it fails to address all the claim limitations.**

It is the law that a claim cannot be rejected for obviousness unless all the claim limitations are addressed by the Patent and Trademark Office. "To establish prima facie obviousness of a claimed invention, **all** the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)." MPEP § 2143.03 (emphasis added). The claim limitation are not options for the Examiner to consider. The law requires that all of the claim limitations must be addressed.

The office action fails to identify prior art for key limitations of the pending claim. In particular, claim 12 is directed to a novel scoring system in which the winning alliance's raw score is enhanced by a function of the raw score of the losing alliance. See claim 12, appearing in the Appendix, ¶5. The novel scoring system is used in "ranking the teams based on the final scores achieved in matches in which they participate" wherein "the contest is conducted in matches between two competing alliances of the teams, each match including a plurality of teams from each alliance" See claim 12, appearing in the Appendix, ¶7 and ¶3)(ii).

Assuming, for the sake of argument, that the Examiner's references can be combined in the manner urged by the Examiner, and assuming further that the references stand for the

propositions urged by the Examiner, nevertheless, the Examiner's combination of references says nothing about using the novel scoring system in "ranking the teams based on the final scores achieved in matches in which they participate", wherein "the contest is conducted in matches between two competing alliances of the teams, each match including a plurality of teams from each alliance".

Let us look at the references cited. Norman et al. says nothing about scoring, and makes only oblique reference to points. Col 8, lines 53 and 56; col 19, line 37. The Examiner's BOTBALL reference is in fact an amalgam of documents. In none of the BOTBALL documents provided by the Examiner, however, can be found any support for the Examiner's statement that "In completing the tasks they are assigned points and at the end the team with the highest point value is declared the winner." Office action, p. 2, number 2. This is utter fiction. Even if it were so, however, there is nothing that discloses ranking teams based on final scores achieved in matches, with each match including an alliance of teams, as required by the claim.

The remaining reference offered by the Examiner in the combination of references, Updike, is about gambling, not robotic competitions, so it does not provide any further detail about using the novel scoring system in ranking robotics teams based on final scores achieved in matches, with each match including an alliance of teams, as required by the claim. In other words the office action fails to establish a *prima facie* basis for rejection, and for that reason is improper.

For the record, however, applicant notes that a portion of the purported BOTBALL reference has nothing to do with BOTBALL but is in fact a description of a FIRST robotics competition. See Examiner's numbered pages 11 et seq. of this reference. The FIRST robotics competition is described in the application pending herein, paragraphs 3 and 4.

**2. The office action fails to make a *prima facie* case for rejection because the combination of references cited is impossible.**

The office action depends on the combination of the patent to Norman et al. and BOTBALL, on the hand, which deal with robotics competitions, with Updike, which deals with

gambling. The robotics competitions are games of skill. Skill is required in designing and assembling and operating the robots. Under the Examiner's characterization of the robotics references, therefore, points are awarded for demonstration of skill in having the robots perform one or more tasks.

In contrast, gambling, the subject of the Updike reference, involves the making of a bet on the outcome of an event which is uncertain. The Examiner asserts that "it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Updike's scoring system into Norma[n] et al's robot competition the motivation being to teach fair peer-to-peer competition." Office action p. 3, number 2.

However, the Examiner is mischaracterizing the Updike reference. Updike concerns setting odds for betting purposes, not scoring in competitions involving the exercise of skill. "Apparatus and methods for fair peer-to-peer gambling is disclosed." Abstract, first sentence. The approach of Updike is applicable to gambling, and uniquely applicable to gambling. Consider the approach laid out in the rest of the abstract of Updike:

Generally, the system receives a bet statement from one of two authorized players. Either one of the two authorized players then enters a whole number percentage representing his belief that the outcome of the bet statement will be true. The player entering the risk percentage is encouraged to be as fair as possible, because the other player chooses which side of the bet he will take, thereby forcing the first player into the other position. The amount of points or money wagered are then automatically determined based on the risk percentage and a predetermined scaling scheme which limits potential gambling losses to levels deemed acceptable by the players. Once the actual outcome is determined, the winning player is rewarded in inverse proportion to his risk percentage. In other words, a winning

player who is favored to win receives less than a winning player who is not favored to win. The winning points are preferably subtracted from the loser's account and added to the winner's account without a "house cut."

Abstract, Updike, patent publication US 2002/0155884. Indeed, the process flow of Fig. 5 of this reference tracks the description in the abstract. While this approach may make sense in gambling, how would one follow this approach in a robotics competitions? None of the conditions called for by the reference apply to a robotics competition because there is no betting. There is no bet statement, there is no risk percentage, there is no bet. Robotics competitions involve skill, not betting, and the Updike reference cannot possibly be applied to robotics competitions. The use of the Updike reference in the office action is a linguistic trick, not based on technology, but on words that have no technological context in relation to the subject matter herein claimed. No one of ordinary skill in the art of robotics competition design has any way of using the content of the Updike reference in robotics competition design.

Accordingly, because the combination of references offered by the Examiner is impossible, there is no *prima facie* case for rejection and the rejection is improper.

**3. The office action fails to make a *prima facie* case for rejection because the Updike reference does not stand for the proposition urged in the office action and, because it is a zero sum competition, teaches away from the subject matter claimed.**

The Examiner, in citing the Updike reference, believes that it is somehow pertinent to the scoring system claimed herein because the reference discloses that "The winning points are preferably subtracted from the loser's account and added to the winner's account without a "house cut." Abstract. Let us assume, for the moment, as the Examiner would have us believe, that the "points" are the same here as points in a game of skill, such as a robotics competition. If so, then the Examiner has proven too much, because in Updike —unlike the presently claimed invention—what the winner gains, the other loser loses. As mentioned in the previous response, Rules specifying that what one gains, the other loses—such rules define a zero-sum game.

Application 10/751,166  
Response to Office Action Dated August 14, 2007

Gambling, which is the subject of the Updike reference, is a zero-sum activity. What one person wins the others must lose. Updike was concerned with setting the odds in a fair manner for such a zero-sum game.

In contrast the subject matter claimed herein defines a scoring system that is completely different from Updike's system, because it is not a zero-sum game. In any match what is added to the score of the teams of the winning alliance is emphatically *not* subtracted from the score of the teams of the losing alliance. In fact, the reverse is true: what is added to the score of the winning alliance is a function of the score of the teams of the losing alliance and *nothing* is subtracted from the scores of the teams of the losing alliance. See **¶5 and ¶6** of the claim as shown in the attached Appendix. Thus Updike does not meet the terms of the scoring system claimed.

For this additional reason, the office action fails to make a *prima facie* case for rejection.

Application 10/751,166  
Response to Office Action Dated August 14, 2007

**Conclusion**

For the foregoing reasons, the record of prosecution of the present application has been, and remains, utterly devoid of any basis for rejection of the pending claim. The rejection under 35 U.S.C. § 103 is improper and must be withdrawn. Accordingly, claim 12 is in condition for allowance. Reconsideration of the application and issuance of a notice of allowance are respectively requested.

To facilitate examination of the present application, in the event that the Examiner intends any action other than allowance of the pending claim, Applicant requests the courtesy of a personal interview with the Examiner and the Supervisory Patent Examiner to discuss the present application prior to any negative action by the Examiner. Please telephone the undersigned so that such an interview may be scheduled.

Applicant believes that no extension of time is required for timely consideration of this response. In the event that an extension has been overlooked, applicant requests that deposit account number 19-4972 be charged for any fees that may be required for the timely consideration of this application. A request for continuing examination is provided herewith.

Respectfully submitted,

/Bruce D. Sunstein, #27,234/  
Bruce D. Sunstein  
Registration No. 27,234  
Attorney for Applicant

BROMBERG & SUNSTEIN LLP  
125 Summer Street  
Boston, MA 02110-1618  
Tel: (617) 443-9292  
Fax: (617) 443-0004

03061/00101 755076.1

## Appendix A

### Pending Claim 12 with Numbered Paragraphs in the Body

12. A method for fostering coopertition and gracious professionalism among students while inspiring an appreciation of science and technology, the method comprising:

¶1) establishing a contest played on a playing field with at least four robots, such robots designed and built with participation of such students, such contest requiring accomplishment repetitively of a designated physical task on the playing field, wherein:

¶2) (i) each robot is controlled by a distinct team of students and designed to repetitively accomplish the physical task, performance of which on the playing field by a given robot triggering attribution to a score based on frequency of achievement of the physical task by the given robot; and

¶3)(ii) the contest is conducted in matches between two competing alliances of the teams, each match including a plurality of teams from each alliance;

¶4) assigning a raw score after each match to each alliance based on frequency of achievement of the task by robots of each team in each such alliance;

¶5) determining a final score for a winning alliance in each match, such winning alliance having a raw score exceeding the raw score of the other alliance by enhancing the raw score of the winning alliance by a function of the raw score of the other alliance, so that the winning alliance is thus motivated to cause the other alliance to achieve a high raw score, and the teams of each alliance must work cooperatively;

¶6) setting a final score for the other alliance in each match equal to the raw score achieved by that alliance; and

¶7) ranking the teams based on the final scores achieved in matches in which they participate;

¶8) so that the students, by engaging in the contest, are provided with an experience involving science and technology under processes as recited herein that motivate cooperation in the midst of competition for a highest final score on the playing field.